

ABSTRACT OF THE DISCLOSURE

The present invention provides a highly-flexible compiler that a user can control optimization by the compiler precisely.

5 A compiler 100 comprises an analysis unit 110 that detects directives (options and pragmas) from a user to the compiler, an optimization unit that is made up of a processing unit (a global region allocation unit 121, a software pipelining unit 122, a loop unrolling unit 123, a "if" conversion unit 124, and a pair instruction generation unit 125) that performs individual optimization
10 processing designated by options and pragmas from a user, following the directives and the like from the analysis unit 110, etc. The global region allocation unit 121 performs optimization processing, following designation of the maximum data size of variables to be allocated to a global region, designation of variables
15 to be allocated to the global region, and options and pragmas regarding designation of variables not to be allocated in the global region.